

# “Staff Report on Proposed Revisions to the State Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California”

## **Introduction**

As part of standards development, the State Water Resources Control Board (SWRCB) periodically reviews its policies as described in California Water Code section 13143. Clean Water Act section 303(c)(1) also requires states to review water quality standards every three years. To comply with these mandates, SWRCB solicited comments on potential revisions to the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) in October 2002. A letter was sent to 1,801 individuals and organizations to request input on any potential revisions. Comments were received in late December 2002 on all aspects of the SIP. Twenty six individuals and organizations responded. Staff reviewed, evaluated, and wrote responses to all 313 comments. Staff has assembled lists of recommended changes, subjects in need of further evaluation and topics that are best addressed through mechanisms external to the SIP.

## **Background Information**

In 1994, following rescission of the Inland Surface Waters Plan and Enclosed Bays and Estuary Plan (ISWP/EBEP), SWRCB and the U.S. Environmental Protection Agency (USEPA) agreed to a coordinated approach to address priority toxic pollutants in inland surface waters, enclosed bays, and estuaries of California. In March 2000, SWRCB adopted the SIP to implement priority toxic pollutant criteria contained in the California Toxics Rule (CTR). The CTR was promulgated by USEPA in May 2000. Additionally, the SIP provides an implementation mechanism for all other priority toxic pollutant criteria and objectives for point source, non-ocean water discharges.

SIP Sections 1.1 (Applicable Priority Pollutant Criteria and Objectives), 1.4.2 (Mixing Zones and Dilution Credits), 2 through 2.2.1 (Compliance Schedules, excluding section 2.1.B and those parts of 2.1 and 2.2.1 that refer to 2.1.B), 5.2 (Site-Specific Objectives), 5.3 (Exceptions), Appendix 1, and Appendix 3 are considered to be water quality standards for the purpose of USEPA review and approval under Clean Water Act section 303(c). As such, these are the only sections that must be considered during a triennial review. In addition, SWRCB has chosen to review non-water quality standards sections on its own initiative.

## **Staff Recommendations**

The following recommendations represent the highest priorities for SIP revisions. Options are presented in the order of importance. These amendments would not require extensive staff time or California Environmental Quality Act (CEQA)/economic analysis and therefore, could be accomplished with existing personnel.

1. Clarify SIP provisions for implementing Basin Plan narrative toxicity objectives in section 4. Provide additional direction on selection of methods, testing frequency, quality assurance, statistical endpoint, and appropriate steps to address toxicity. These changes would reduce permit writer workload by providing information necessary to prepare consistent and scientifically defensible requirements.

Staff will propose amendments to the toxicity control provisions to more clearly describe the section's purpose. The intent of the SIP toxicity control provision is to lay out an iterative approach for toxicity control.

Possible modifications could include:

- Developing a logical framework for determining reasonable potential.
- Providing direction on identifying appropriate Whole Effluent Toxicity (WET) monitoring triggers.
- Providing direction on selecting appropriate endpoints such as no effect and low effect concentrations.
- Laying out a framework for regulatory actions under a variety of conditions such as requiring accelerated toxicity testing, review of the facility operations, and submitting a toxicity reduction evaluation (TRE) workplan.
- Describe under what circumstances the TRE/Toxicity Identification Evaluation (TIE) activities can be terminated.

Other changes may be considered. The above options are presented only as examples. No decisions have been made as to what specific amendments will be proposed or adopted.

2. Allow Water Effects Ratios (WERs) to be established as part of the permit process, rather than through the Basin Planning process as currently required. WERs are a procedure published by USEPA that accounts for differences between the toxicity of a chemical in laboratory dilution water (which is used to develop national criteria) and site water. Currently when a site-specific objective (SSO) for a priority pollutant is developed using the WER procedure, it must be approved by the Regional Water Quality Control Board (RWQCB), SWRCB, and USEPA. This current process can require a significant amount of time.

The SIP can be modified to allow for the approval of WERs for CTR criteria as part of the permit process, as USEPA currently advises. This change would only affect CTR criteria and would not change the procedure for priority pollutant objectives contained in Basin Plans.

3. Eliminate the reasonable potential trigger from SIP section 1.3 for situations where ambient background pollutant concentrations are greater than a criterion. This would eliminate effluent limits that are required based solely on ambient background concentrations. Instead, precautionary effluent monitoring would be required. When a pollutant's maximum observed ambient concentration approaches a water quality criterion, the potential for impairment exists. Further additions of the subject pollutant may potentially contribute to such an impairment, particularly for bioaccumulatives. Including an effluent limitation for pollutants with ambient concentrations greater than or equal to a criterion is a proactive means to ensure no further impairment occurs. This approach could also be maintained by requiring dischargers to monitor for the presence of the pollutant in their effluent. Reasonable potential could be required when the pollutant is detected. Other measures to prevent impairment may also be necessary.

SWRCB staff has not determined the specific details of how this change will be made. The intent is to remove the reasonable potential trigger and add steps that will ensure no further impairment occurs. Other actions or requirements will be decided as the amendment is developed.

4. Adopt non-regulatory language corrections. Several of the following changes consist of rephrasing sentences to improve clarify.
  - Introduction: Delete “issuance or waiver of waste discharge requirements” from sentence 2, paragraph 1 on page 1 and make appropriate corresponding changes to the footnote as required. This change will further clarify that the SIP does not apply to nonpoint sources or to storm water.
  - Section 1.3: Reword Steps 1 through 8 to focus on total metals.
  - Section 1.3: Similar logic needs to be used in both Steps 3 and 5. However, verbally they are inconsistent. Therefore, Step 5 should be reworded so that it is similar to Step 3, and the word “insufficient” needs to be clarified on how it should be evaluated.
  - Section 1.3: The word “Adjust” in Step 4 needs to be clarified. Technically one cannot adjust the maximum effluent concentration (MEC). A different word needs to be used; something similar to what is explained in Step 1.
  - Section 1.3: Language needs to be added to Step 8 because it may put dischargers in an endless loop of monitoring. The added language would bring finality to the evaluation process.
  - Section 2.4: The term Reported Minimum Level (RML) should be removed to prevent confusion. Many RWQCBs have mistakenly applied MLs instead of RMLs. Reporting Level (RL) would replace RML.
  - Section 2.4.1: Language at the end of Item 1 is confusing and should be rewritten as, “The RWQCB shall require in the permit that the discharger shall report with each sample result:

The applicable Reporting Level (selected from Appendix 4 in accordance with section 2.4.2 or established in accordance with section 2.4.3); and  
The laboratory's current \*Method Detection Limit (MDL), as determined by the procedure found in Title 40 Code of Federal Regulations (CFR) 136 (revised as of July 3, 1999)."

- Section 5.3: Exceptions should revise the categorical exception provision from "activities conducted by public agencies to fulfill statutory requirements" to "activities authorized by statute."

## **Timeline**

A proposed timeline for making these changes is included as Attachment A. Generally, it is anticipated that it will take 575-665 days to develop and adopt the above recommendations.

## **Issues Undergoing Further Evaluation**

Consider SIP amendment to authorize RWQCBs to grant exceptions to SIP provisions and CTR criteria. USEPA, Region 9 made this suggestion. CEQA compliance and USEPA concurrence would still be required as described in SIP section 5.3. SIP exceptions currently require SWRCB approval. Amending the SIP as described would allow RWQCBs to pursue more options directly without having to go through SWRCB. Workload requirements and RWQCB interest must still be assessed.

## **Issues to be Addressed Through Processes Outside the SIP**

Several comments centered on topics that are either fall outside the SIP's scope or may be better addressed through other mechanisms. Options include informational memos from SWRCB staff, SWRCB and RWQCB workgroups, and separate policies. Subjects in these categories include exceptions, metals translators, selecting hardness values, effluent dominated waterways (EDWs), MLs, storm water, and previously adopted precedential orders.

SWRCB staff is evaluating ways to make use of SIP exceptions a more viable option for RWQCBs facing difficult implementation problems. SWRCB staff is preparing informational memos and examples for RWQCB staff to clarify the exception process and provide input on when exceptions are appropriate.

Metals translators as described in SIP section 1.4.1 present a significant avenue for modifying effluent limitations to fit site-specific conditions. In contrast to site-specific objectives, translators may be developed through permits rather than Basin Plan amendments. To date few dischargers have proposed translators for RWQCB approval. It may be necessary to assemble examples, provide a model framework for translator development, and circulate them to permit writers. Resources for this work will need to be identified.

Many comments were made on how to select hardness values for calculating metals effluent limitations. CTR freshwater aquatic life criteria for certain metals are expressed as a function of hardness because hardness changes can reduce or increase the toxicities of some metals. Some

indicated the minimum value was appropriate, and others preferred mean or median values. The SIP is silent on how to choose hardness data, and the correct choice is expected to vary with site-specific considerations. The preferable approach to addressing this issue is additional training to educate RWQCB staff about factors to consider when determining data needs to establish hardness values. Such training would enable permit writers to determine on a site-specific basis how much and what kind of data is needed. This approach is preferable to adopting a SIP revision that attempts to establish statewide requirements that fit all water bodies during all seasons. Resources for this work will need to be identified.

EDWs provoke a considerable amount of disagreement. In Water Quality Order 2002-0015 (Vacaville Order), SWRCB found that the SIP contains sufficient flexibility to issue NPDES permits for discharges to EDWs. It also found that many of the complaints raised by EDW dischargers stem from beneficial use designations and references to upstream or background conditions. To the extent that RWQCBs believe current water quality standards do not accurately reflect site-specific EDW conditions, SWRCB staff will provide options and promote solutions that protect water quality while also acknowledging any permitting difficulties that EDWs may pose. There is no need to address EDWs separately in the SIP.

Comments on MLs from Appendix 4 centered on development methods, matrix considerations, and the need to update MLs over time. Some commenters stated MLs were developed incorrectly. In response to similar assertions made after the SIP was initially adopted, SWRCB staff reexamined the data used to derive MLs. While some analytical laboratories professed to have been confused when they provided data, there was no indication that the subsequently derived MLs were inappropriate. SWRCB staff is aware that many labs are now able to meet SIP MLs. Other commenters requested that MLs be modified to consider matrix-specific interferences. Dischargers are allowed to develop their own reporting limits when their sample matrix differs from the simplistic models used to derive reporting limits from MLs. Please note that the ML remains the same because it is simply the lowest calibration standard. Finally, some commenters expressed a desire to have MLs updated automatically to agree with new federally-approved analytical methods. SWRCB makes every attempt to make available the most current federally approved methods within the SWRCB's requirements for adopting changes to the SIP. The Office of Administrative Law will not approve prospective incorporation of federal regulations.

Several commenters requested language be added to the SIP regarding storm water. Examples include: (1) adding statements that numeric limits are not appropriate for storm water discharges; (2) adding statements that numeric limits are appropriate for storm water discharges; (3) advocating iterative best management practices (BMPs) with numeric limits if BMPs fail; (4) considering hydrologic, physical or economic factors; (5) adding a statewide storm water policy to the SIP; and (6) considering the impact of future total maximum daily loads. Footnote 1 on page 1 states "This Policy does not apply to regulation of storm water discharges." As such, including language about storm water regulations would be contradictory and counterproductive. Storm water discharges are a separate consideration from the types of discharges covered by the SIP and therefore are best addressed through SWRCB's storm water program.

Precedential water quality orders are adopted by the SWRCB in response to permit petitions. Such orders can clarify how the SIP is to be interpreted and how individual effluent limitations are calculated. Some commenters noted that RWQCB staff is not implementing previous precedential orders when writing new permits. To the extent that this occurs, it may be necessary to provide summaries of major decisions so that all new permits incorporate previous SWRCB orders. Adding these orders to the SIP would not provide any new benefit since precedential orders are equally binding as the SIP.